

University of Richmond

UR Scholarship Repository

Honors Theses

Student Research

5-6-2021

Using an Intersectionality Framework to Examine Disparities in the Steps to Kidney Transplantation in Patients with End Stage Renal Disease

Kacy Workman
University of Richmond

Follow this and additional works at: <https://scholarship.richmond.edu/honors-theses>



Part of the [Health Psychology Commons](#)

Recommended Citation

Workman, Kacy, "Using an Intersectionality Framework to Examine Disparities in the Steps to Kidney Transplantation in Patients with End Stage Renal Disease" (2021). *Honors Theses*. 1538.
<https://scholarship.richmond.edu/honors-theses/1538>

This Thesis is brought to you for free and open access by the Student Research at UR Scholarship Repository. It has been accepted for inclusion in Honors Theses by an authorized administrator of UR Scholarship Repository. For more information, please contact scholarshiprepository@richmond.edu.

Using an Intersectionality Framework to Examine Disparities in the Steps to Kidney
Transplantation in Patients with End Stage Renal Disease

Kacy Workman

Honors Thesis

Submitted to:

Psychology Department

University of Richmond

Richmond, VA

May 6, 2021

Advisor: Dr. Camilla Nonterah

Abstract

Intersectionality is a theory examining how individuals' different identities intersect to create a new lived experience, often with compounded oppressions. This theory has recently been utilized in health research to help understand and find effective ways of addressing health disparities (Bowleg, 2012). However, while studies have theorized broadly about intersectionality theory in health research, it has seldom been used to specifically address health disparities in patients with End Stage Renal Disease (ESRD). This study conducted a systematic literature review of past research that has examined barriers to kidney transplantation among ESRD patients with intersectional identities, particularly concerning race and gender. The findings of this literature review found themes of race and gender interactions, lack of explicit use of the intersectionality framework, a focus on Black and White racial groups as well as cisgender individuals, and external validity limitations. In light of these themes, more large intersectional research studies concerning ESRD disparities involving diverse participants is recommended so that the literature base for intersectional identities can grow and lead to more targeted, efficient, and effective intervention programs.

Keywords: kidney transplantation, disparities, intersectionality, end stage renal disease

Using an Intersectionality Framework to Examine Disparities in the Steps to Kidney Transplantation in Patients with End Stage Renal Disease

As of 2017, the global prevalence of End-Stage Renal Disease (ESRD), the fifth and final stage of Chronic Kidney Disease (CKD), was about 2,242 cases per million people, one of the highest in the world, according to the US Renal Data System (Johansen et al., 2021). Currently, there is no cure for ESRD, although it can be managed by ongoing dialysis and eventually kidney transplantation can help restore renal functioning (Sullivan et al., 2012b). Although kidney transplantation is often the best course of action to treat ESRD, unfortunately patients often face many barriers to receiving a transplant. Studies have found that patients reported barriers such as financial concerns, prior medical experiences, and psychological factors that impact their receipt of a transplant (Dageforde, Box, Feurer, & Cavanaugh 2015); and moreover, these barriers specifically affect patients depending on their race and class (Schold et al., 2011). Researchers have also examined the individual steps to transplantation: assessment of suitability, interest in transplant, referral, the first visit to center, transplant workup, evaluation as a successful candidate, waiting list or identifying a living donor, and transplantation (Sullivan et al., 2012a). When examining these specific steps, studies have shown race and class disparities specifically in the steps of referral, evaluation, waitlisting, and transplantation (Patzner et al., 2012). In particular, researchers have determined that Black patients had a 59% lower rate of kidney transplant than White patients, and socioeconomic status (SES) only accounted for one third of this disparity (Patzner et al., 2012). Despite these findings, few studies have examined the aggregated impact of multiple marginalized statuses on disparities in the kidney transplant process, which would allow for a more in-depth analysis of these health disparities and barriers.

However, in recent years, a new framework has been used to address these specific combined health disparities known as intersectionality theory.

A term coined by Black feminist scholar, Kimberle Crenshaw, in 1989, “intersectionality” was originally used to describe the phenomenon of one’s race and gender intersecting to create a new experience of living in the world, with compounded oppressions (Crenshaw, 1989). Since the creation of this concept, its definition has expanded to include other minority statuses such as sexuality and socioeconomic status, and its influence has reached beyond the realms of feminist and critical race theory. In recent years, intersectionality has become an increasingly popular lens used in the field of public health (Hankivsky & Christoffersen, 2008; Cole, 2009; Rodgers & Kelly, 2011; Bowleg, 2012; Hankivsky, 2012; Bowleg, 2013; Hankivsky et al., 2014; Bauer, 2014; Hankivsky et al., 2017). In particular, Bowleg (2012) demonstrates why using an intersectional perspective is integral to public health. In the article, she describes how individual identities and the social inequalities associated with them can lead to health disparities at the institutional level. Bowleg (2012) asserts that an intersectional perspective asks researchers to reconceptualize health disparities in ways that reflect the complexity of the population. Similarly, Rogers and Kelly (2011) also theorize the importance of intersectionality in health research positing that it can help to achieve social justice, thus fulfilling the justice tenant of the Belmont report, a doctrine created in response to the Tuskegee Syphilis Study that outlines ethical principles and guidelines for research. The researchers claim that while a biomedical approach to examining health disparities does not address origins of health disparities, an intersectional approach acknowledges how personal identities and societal power dynamics can influence the research process (Rogers & Kelly, 2011).

Once intersectionality as a lens to view health disparities had been broadly theorized, researchers began attempting to apply the theory to more specific research areas (Hankivsky, 2012; Bowleg, 2013; Hankivsky et al., 2014). For example, Hankivsky (2012) deconstructs the implications of intersectionality on gendered health research. She identifies how the terms “gender” and “women” are often conflated which can lead to the erasure of male-specific health needs (Hankivsky, 2012). Further, she emphasizes how focusing on the differences between men and women often does not reflect the diversity within these gender groups (Hankivsky, 2012). Ultimately, she recommends that researchers integrate intersectionality theory into their research by investigating power structures such as privilege and whiteness and asking questions like “What are some of the day to day challenges that you face in terms of your identity?” to examine the multiplicity of people’s experiences (Hankivsky, 2012). Correspondingly, Bowleg (2013) theorized more specifically the intersections in the female gender. In her article she criticizes how much recent research only benefits the already privileged white middle class; however, she posits that by looking at the issues intersectionally and approaching health from the perspective of women of color with a low socio-economic status, all women can be helped, not only the already privileged population (Bowleg, 2013).

Intersectionality and Health Research

Further, researchers have used intersectionality as a specific lens with which to view specific health cases (Hankivsky & Christoffersen, 2008; Hankivsky et al., 2014; Hankivsky et al., 2017). For example, Hankivsky et al. (2017) used an intersectional lens to examine HIV/AIDS, post-traumatic stress disorder (PTSD), cardiovascular disease (CVD), and female genital circumcision. In the researchers’ example of HIV/AIDS, they recognized that sexuality,

sex, gender, and socioeconomic status all intersected to influence the acquisition and spread of the disease, and that the influence of each factor depended heavily on the specific details of each case. Ultimately, they discuss how using an intersectional analysis can help researchers to better understand epidemics such as HIV/AIDS, and lead to more effective preventative and palliative care. Hankivsky and Christoffersen (2008) also used an intersectional perspective to examine the Canadian framework of health determinants. When looking at the Canadian system, the researchers first noted that in an intersectional system all health inequalities must be related to multiple determinants so that systems of power and social identities are always at play (Hankivsky & Christoffersen, 2008). They also discussed introducing more within-category diversity as a more effective way of capturing the different intersections that can impact health. Correspondingly, Hankivsky et al. (2014) presents the Intersectionality-Based Policy Analysis (IBPA) framework which provides a way to analyze policy with the guiding principles of equity, social justice, and multi-level analysis. In an example, the researchers examine why only 15% of Canadians have access to palliative care as they age. They found that population, geographic location, housing status, gender, and access to support networks can all interact to influence someone's palliative care (Hankivsky et al, 2014). However, using the IBPA the researchers determined that, at a base level, all of these groups could benefit from creating more hospice houses in the communities.

Although many researchers have advocated for the integration of intersectionality into health research (Hankivsky & Christoffersen, 2008; Rodgers & Kelly, 2011; Bowleg, 2012; Hankivsky, 2012; Bowleg, 2013; Hankivsky et al., 2014; Hankivsky et al., 2017), others have considered its potential challenges (Bauer, 2014; Cole, 2009). In particular, Bauer (2014) discusses some challenges of integrating intersectionality into health research including

confusion about the values of social positions and distinguishing between social positions, processes, and policies. However, Cole (2009) addresses some of these challenges and provides some guidance in this area by encouraging researchers to understand how social categories are shaped and to view concepts such as race and gender as social processes instead of characteristics.

While it is clear that research theorizing intersectionality's benefits to health research has been considered from a number of perspectives in recent years, researchers have also begun implementing this concept into experimental studies leading to intersectional data analyses which have painted more detailed pictures of health disparities.

Health Disparities and Intersectionality

Studies have shown that having multiple disadvantaged statuses can lead to poorer health (Veenstra, 2011; Grollman, 2014; Bastos, Harnois, & Paradies, 2018). Particularly, Grollman (2014) examined how race, gender, sexual orientation, and weight interacted to affect an individual's health. The results of the study indicated that people who have multiple disadvantaged statuses are more likely to face poor physical and mental health when compared to those with only one or no disadvantaged statuses. Further, the health of individuals with one disadvantaged status was not significantly different than the health of individuals with no disadvantaged statuses (Grollman, 2014). Similarly, Bastos, Harnois, and Paradies (2018) examined a similar concept when analyzing data from the Australian health care system. In their analysis, the researchers found that perceived racial discrimination combines with other forms of discrimination to create more barriers to health care, which also supports the need for intersectional analyses and studies. Veenstra (2011) corroborated these findings and investigated

intersections between race, gender, socioeconomic status, and sexuality in the Canadian healthcare system, ultimately finding that gender and class both had significant interactions with race when predicting self-rated health. These studies point to the importance of integrating intersectionality theory into health research, as if individuals' health worsens with multiple disadvantaged statuses, researchers should take this into account when designing their studies and analyzing their data so that these important intersections are not overlooked.

Considering the findings of Grollman (2014), Bastos, Harnois, and Paradies (2018), and Veenstra (2011), researchers have begun to look at health disparities through a more intersectional lens. Researchers have examined how minority statuses such as race, gender, sexuality, ability status, and socioeconomic status can interact and lead to worse health outcomes (Iyer, Sen, & Ostlin, 2008; Van, Mereish, Woulfe, Katz-Wise, 2019; Hargrove, 2018; Zuurmond et al., 2018; Lefevor, Boyd-Rogers, Sprague, & Janis, 2019; Naqvi et al., 2019). Some researchers have examined how race specifically intersects with other social identities to affect individual's health (Hargrove, 2018; Naqvi et al., 2019). Examining the field of diabetes health, Naqvi et al. (2019) investigated how sex, race, and relationships can affect health outcomes in diabetes patients. They found that race and gender interacted and revealed that Black women demonstrated the lowest self-care and self-efficacy across all race and gender groups. Further, they found that relationship quality most influenced medication adherence and self-efficacy with Black women (Naqvi et al., 2019). Additionally, Hargrove (2018) examined intersectionality within the category of race when looking at BMI trajectories among African American adults. Specifically looking at skin color, gender, and age difference within the African American community, the study found that women with dark skin had the highest BMI in adulthood of all other skin color and gender groups. Conversely, their findings showed that men with medium

skin tones had the lowest BMI across adulthood relative to other groups (Hargrove, 2018). While Naqvi et al. (2019) and Hargrove (2018) examine intersectionality in health through a racial lens, other researchers have explored intersectionality in health disparities through gender or sexuality.

Researchers have also used intersectionality to explore health disparities through the lens of gender (Iyer, Sen, & Ostlin, 2008; Lefevor, Boyd-Rogers, Sprague, & Janis, 2019). Specifically, Iyer, Sen, & Ostlin (2008) reviewed existing literature to examine how gender and class interact to impact health care. The researchers highlight that working-class women's health is hurt not only by more dangerous job opportunities, but also by their uncompensated household labor. Because of this "second shift" and women's general lack of control over household resources, working class women often do not have the time to engage in positive health behaviors. Further, rather than looking at the intersections between gender and other identities, Lefevor, Boyd-Rogers, Sprague, & Janis (2019) investigated intersectionality within the gender category and looked into health disparities between genderqueer, transgender, and cisgender individuals. Ultimately, the researchers' data suggested that genderqueer individuals were more likely to be anxious, depressed, and have more psychological stress than transgender and cisgender individuals (Lefevor, Boyd-Rogers, Sprague, & Janis, 2019). These studies indicate that in and of itself, gender often interacts with multiple other identities, particularly class, and can change the way that people experience health; but they also suggest that gender roles and historical gender stereotypes still affect people's access to health resources and often cause undue stress when people do not fit into their predetermined roles (Lefevor, Boyd-Rogers, Sprague, & Janis, 2019).

Although equally as essential as the other categories, sexuality and disability status and their connections to health disparities have not been widely studied. Although some studies have

investigated their effects as a single disadvantaged status (Van, Mereish, Woulfe, Kate-Wise, 2019; Zuurmond et al., 2018), it appears that no studies have examined them intersectionally. Zuurmond et al. (2018) examines barriers in access to health care in Cameroon and India for people with disabilities (visual, hearing, or musculoskeletal impairments). In their qualitative study, they found that many participants were less likely to seek medical treatment due to a lack of understanding of their own impairment and health conditions (Zuurmond et al., 2018). Interestingly, another key theme was that “economic decision making” was often involved, meaning that the family member in charge of finances usually made the final decision about medical treatments. The study even suggested that there were intersections with gender and age, in that women with disabilities often reported depending on male family members to make financial decisions which often affected their access to healthcare (Zuurmond et al., 2018).

On the other hand, Van, Mereish, Woulfe, and Katz-Wise (2019) investigated the difference between bisexual and non-monosexual individuals’ experiences with discrimination and its effect on their health. After analyzing the participants’ survey responses, the researchers found themes of discrimination from healthcare providers, avoiding healthcare, and decreased mental and physical health. For example, many participants reported not being able to afford healthcare because their sexuality often stopped them from being hired. Participants also reported having high levels of stress and anxiety (including panic attacks) as well as chronic pain. Some even avoided notifying healthcare professionals about their sexuality despite its relevance (Van, Mereish, Woulfe, Kate-Wise, 2019). Although neither Zuurmond et al. (2018) or Van, Mereish, Woulfe, and Kate-Wise (2019) used intersectionality as a guiding framework in their studies, both provided a strong basis for these understudied topics and touched on employing within-group intersectionality.

Race, gender, sexuality, ability status, skin color, and age are just some of the identities that can be utilized to create a clearer picture of individuals' experiences in intersectional health research. While it's clear that some tenets of intersectionality have been applied to health research broadly, it's equally important that intersectional research expands to all subfields of health research, including that of transplantation. As studies have determined that there are health disparities in the different steps to transplantation, it would follow that using an intersectional lens to examine these disparities could lead to a more in-depth analysis which could be the basis of more targeted interventions (Patzner et al., 2012).

The Current Study

This study seeks to find insight into the health disparities and barriers that ESRD patients face at different stages in the kidney transplant process through using an intersectional framework, specifically examining the intersection of race and gender. Like Patzner et al. (2012), past studies have focused on examining intersecting identities regardless of whether they explicitly use the term "intersectionality." Thus, the current study conducted a systematic literature review concerning research about kidney transplantation that incorporate aspects of intersectionality pertaining to race and gender. By using an intersectionality framework to examine this topic and finding studies that include intersectional identities, we can better determine how to use intersectionality to address disparities in access to transplantation. The primary goals of this study are 1) to determine if intersectionality has been used to address barriers based on race and gender in the transplantation process 2) to determine if studies specifically designate that they are utilizing an intersectionality framework. This would be

indicated by explicitly naming intersectionality and describing how it was utilized to guide the research.

Methods

A systematic literature review was conducted of studies to determine whether they used an intersectionality framework and examined intersectional disparities in the steps to kidney transplant in patients with ESRD, based on race and gender. The literature review used protocol from Traino et al. (2015), which employed the following research databases: PubMed/Medline, PsycINFO, CINHALL, EMBASE, Cochrane library and Web of Science.

Inclusion criteria. Papers that met the following criteria were included: research must have been published after 2005, research must have been conducted in the United States of America and include participants 18 years old and older, the research must be available in English and use quantitative or qualitative research designs, and the article must include intersectionality related to gender and race (Traino et al., 2015). Intersectionality could be seen by explicitly naming the theory and describing how it influenced the research process, or through an analysis of the data that takes into account the compounded effect of race and gender. The included articles were coded for disparities, barriers in different steps to transplantation, and solutions to the barriers and disparities described (Traino et al., 2015).

Data extraction. Articles were identified using the following keywords: kidney transplantation, kidney disease, disparities, barriers, race and gender, intersectionality, and interaction. The articles were verified with a librarian to ensure no studies was overlooked.

Results

Originally, 17 articles were identified (see figure 1). Of these articles, 1 was excluded due to not being conducted in the United states, another was excluded for involving adolescent participants, and 9 were excluded for not including intersectionality specific to race and gender. Ultimately, 6 studies fulfilled the inclusion criteria (see figure 2). Each article was coded by two lab members to ensure interrater reliability, which was originally between 70% and 100% for each article, and there was an in-depth discussion of all six articles to ensure 100% agreement. These articles were coded for step in the transplant process, disparities and barriers, and type of intersectionality, to name a few, and four themes were identified: lack of explicit use of the intersectionality framework; race and gender interaction; focus on Black, White, and cisgender participants; and lack of external validity.

Lack of Explicit Use of Intersectionality Framework.

Of the six studies identified by the systematic literature review, half examined within-group differences (looking at gender differences within a Black patient sample), and half utilized intersectional statistical methods, yet none of the six studies explicitly used an intersectionality framework.

Race and Gender Interaction.

Every study identified by the systematic literature review found an interaction between gender and race. Notably, some key findings were that Black women were less likely to want a living donor kidney transplant and were less likely to be evaluated despite the fact that all women regardless of race were more likely to be a living donor (Gillespie et al., 2014; Salter et al., 2015; Mustian et al., 2019). Some reasons for this disparity could be that women were found to be less likely to want aggressive treatments, Black women were less likely to have a strong

support system, and women were more content with their quality of life on dialysis (Gillespie et al., 2014; Salter et al., 2015). Additionally, Latinx/Hispanic men, Latinx/Hispanic women, and White men all completed the evaluation 2x-3x faster than Black men, and White and Latinx/Hispanic men completed the evaluation more quickly than their female counterparts (Monson et al., 2015). It was also found that Black women were more likely to not donate their kidneys due to obesity (Reeves-Daniels et al., 2009). This is particularly important as HLA matching is a primary factor of kidney allocation, and it has been suggested that racial differences have been found in antigen expression (Churak, 2005). If Black women are less likely to donate their kidneys, this makes the donation pool even more White, which puts Black recipients at a grave disadvantage.

Focus on Black, White, and Cisgender Participants.

While all of the studies examined people with Black or White racial backgrounds, only one studied people with a Latinx/Hispanic ethnic background, and no study examined Asian, mixed race, Native American, or Pacific Islander populations (Monson et al., 2015). Additionally, all of the studies looked at gender through the cisgender male/female binary and individuals identifying as transgender, genderqueer, and gender non-conforming were not included in any analysis.

Lack of External Validity.

Four out of six of the identified studies mentioned that external validity/generalizability was a key limitation of the study primarily due to working directly with single transplant centers and communities. However, in using participants from a single transplant center, the results are more difficult to generalize because the results in part could be attributed to transplant center factors or community factors.

Discussion

The evidence base concerning combined gender and race disparities and barriers in the kidney transplant process is limited. Although intersectionality theory has become increasingly popular in the field of public health (Rodgers & Kelly, 2011; Bowleg, 2012), it appears that its popularity has not reached the subfield of ESRD research. This study found four primary themes pertaining to gender and race intersectional disparities in the kidney transplant process: lack of explicit use of intersectionality theory; race/gender interaction; focus on Black, White, and cisgender individuals; and external validity limitations.

Of the six studies identified by this systematic literature review, half looked at within-group intersectionality (Gibney, Parikh, & Garg, 2008; Gillespie et al., 2014; Salter et al., 2015) and half utilized intersectional statistical methods (Reeves-Daniels et al., 2009, Monson et al., 2015; Mustian et al., 2019), but none explicitly utilized an intersectionality framework in their research. Using an intersectionality framework is important as it not only asks that we look at the people living in the intersections, but it positions the research in and of itself from the perspective of people from the margins while not making assumptions about the importance of any one social category over another (Fehrenbacher & Patel, 2020). Moreover, the intersectionality framework asks researchers to engage with their own positionality within the power structures at play and recognize that they are not objective observers outside the scope of the research (Fehrenbacher & Patel, 2020). These theoretical aspects of the intersectional framework as equally as important as the intersectional analyses themselves, and thus it is important that the intersectionality framework is explicitly utilized in research to promote equity throughout the entire research process and social justice within the field (Fehrenbacher & Patel,

2020). The fact that none of the studies identified in this research specifically utilize this framework highlights a methodological gap in the field that requires more attention.

Among all of the studies there was considerable evidence of intersectional disparities in the kidney transplant process concerning race and gender including a lower likelihood that Black women would be evaluated for a living kidney donor transplant, less desire for a living kidney donation among Black women, slower pre-transplant workup completion among Black men, faster evaluation form completion for White and Hispanic men, and a lower likelihood of Black women donating their kidneys due to obesity (Gibney, Parikh, & Garg, 2008; Reeves-Daniels et al., 2009, Gillespie et al., 2014; Salter et al., 2015; Monson et al., 2015; Mustian et al., 2019). The finding for Hispanic populations is especially interesting as Hispanic individuals are rarely examined in transplant research and these conclusions indicate that further investigation into this racial/ethnic group is warranted. These findings help to acknowledge that diversity within racial groups is equally as important as diversity between racial groups and demonstrate how intersectionality can help researchers to examine issues with more complexity. Intersectional analyses that give us these nuanced results help us to better identify the problems faced by those who often fall through the cracks and can guide us to where we can best allocate our resources. While efforts at dismantling these disparities usually focuses on either race or gender, these results highlight a need for more targeted programs that direct resources to the specific groups of people most affected by these various issues – such as Black men and women.

A representation problem was also observed amongst the identified studies. All of the studies looked primarily at White and Black participants with only one examining the Hispanic/Latinx population and people of mixed race, Native American, Asian American, and Pacific Islander descent were notably absent. With so many racial/ethnic groups barely

mentioned or not mentioned in the intersectional research, this indicates that there are many more intersectional disparities in ESRD and kidney transplantation that we are unaware of which is a substantial gap in the literature. A key aspect of intersectionality theory is recognizing who is and is not being represented, and it's clear that many groups are not being seen. However, it should be noted that one reason behind this research disparity could be that fewer Asian American and Pacific Islander individuals are diagnosed with ESRD. Yet, as intersectional health disparities and barriers were consistently found with White and Black participants, it is likely that these disparities and barriers persist in other racial/ethnic groups, and at least warrant investigation.

Additionally, all of the studies examined cisgender male and female gender identities and did not include transgender, genderqueer, and gender nonconforming individuals. Studies have previously suggested that genderqueer individuals were more likely to experience health issues like anxiety, depression, and psychological stress than cisgender individuals (Lefevor, Boyd-Rogers, Sprague, & Janis, 2019), and that people with multiple disadvantaged status face poorer physical and mental health (Grollman, 2014). Moreover, researchers have found that LGBT individuals often face discrimination from healthcare providers and thus avoid healthcare which worsens their health, and many described not being able to afford healthcare as their sexuality has prohibited them from being hired (Van, Mereish, Woulfe, & Katz-Wise, 2019). It would stand that similar things could be said for genderqueer and non-binary people. So while it is clear that gender identity can impact personal health and access to healthcare, it is probable that there are also intersectional disparities and barriers that sit at the intersection of gender identity and race that have not been acknowledged or investigated. As such, a need for more representation

for different gender and racial identities is essential for the field of ESRD and transplantation so that this striking gap in the literature can be filled.

Although the studies included all utilized sound research methods and analyses, four of the studies mentioned that external validity and generalizability might be a key limitation due to conducting research using a single transplant center (Gillespie et al., 2014; Salter et al., 2015; Monson et al., 2015; Mustian et al., 2019). These results are helpful for identifying problems for specific populations that could be seen at a more national or regional level, but in order for these preliminary results to be bolstered, more research should be conducted using a larger sample size from multiple regions. Additionally, researchers should consider conducting meta-analyses of the studies already conducted so that it can be ensured that these results are generalizable to the population at large. Grand scale intersectional studies should receive more funding as they often can provide results that can help to better target resources to the communities and individuals most at risk, making these programs more efficient and effective. An example of this can be seen in Hankivsky et al. (2014) as the researchers used the intersectionality framework on the Canadian health system to determine how to best improve palliative care.

This systematic review is not without limitations. Through excluding articles not written in English and studies not conducted in the United States of America, it was not possible to gain insight into how these intersectional disparities show up in other cultures across the world. Additionally, this study only examined intersectionality as it pertains to race and gender, other social identifiers such as class, geographic location, age, and sexuality, to name a few, were not included in the analysis and thus these results do not reflect the entirety of intersectional research from 2005-2021.

The key to addressing disparities in the transplant process for ESRD patients is conducting more research on diverse samples using an intersectionality framework so that barriers and disparities for specific groups can be identified and more targeted initiatives can be developed. For a long time, people with marginalized identities have been pushed to the side in research, and people with multiple marginalized identities have been made almost invisible. These findings shed light on the importance of the intersectionality framework in ESRD research, from aspects of intersectionality that have been used and have highlighted important results, to how the framework can be utilized to its full potential – uncovering the hidden disparities that have plagued the most marginalized among us, and revealing how these individuals can best be helped in the process of kidney transplantation for ESRD.

References

- Bastos, J. L., Harnois, C. E., & Paradies, Y. C. (2018). Health care barriers, racism, and intersectionality in Australia. *Social Science & Medicine*, 199, 209-218.
- Bauer, G. R. (2014). Incorporating intersectionality theory into population health research methodology: challenges and the potential to advance health equity. *Social science & medicine*, 110, 10-17.
- Bowleg, L. (2012). The problem with the phrase women and minorities: intersectionality—an important theoretical framework for public health. *American journal of public health*, 102(7), 1267-1273.
- Bowleg, L. (2013). Retheorizing women's health through intersectionality's prism. *Women's health psychology*, 25-45.
- Churak, J. M. (2005). Racial and ethnic disparities in renal transplantation. *Journal of the National Medical Association*, 97(2), 153.
- Cole, E. R. (2009). Intersectionality and research in psychology. *American psychologist*, 64(3), 170.
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *u. Chi. Legal f.*, 139.
- Dageforde, L. A., Box, A., Feurer, I. D., & Cavanaugh, K. L. (2015). Understanding patient barriers to kidney transplant evaluation. *Transplantation*, 99(7), 1463.
- Fehrenbacher, A. E., & Patel, D. (2020). Translating the theory of intersectionality into quantitative and mixed methods for empirical gender transformative research on health. *Culture, health & sexuality*, 22(sup1), 145-160.

- Gibney, E. M., Parikh, C. R., & Garg, A. X. (2008). Age, gender, race, and associations with kidney failure following living kidney donation. *Transplantation Proceedings*, 40(5). <https://doi.org/10.1016/j.transproceed.2008.03.104>
- Gillespie, A., Hammer, H., Kolenikov, S., Polychronopoulou, A., Ouzienko, V., Obradovic, Z., ... & Silva, P. (2014). Sex differences and attitudes toward living donor kidney transplantation among urban black patients on hemodialysis. *Clinical Journal of the American Society of Nephrology*, 9(10), 1764-1772.
- Grollman, E. A. (2014). Multiple disadvantaged statuses and health: the role of multiple forms of discrimination. *Journal of health and social behavior*, 55(1), 3-19.
- Hankivsky, O., & Christoffersen, A. (2008). Intersectionality and the determinants of health: a Canadian perspective. *Critical Public Health*, 18(3), 271-283.
- Hankivsky, O. (2012). Women's health, men's health, and gender and health: Implications of intersectionality. *Social science & medicine*, 74(11), 1712-1720.
- Hankivsky, O., Grace, D., Hunting, G., Giesbrecht, M., Fridkin, A., Rudrum, S., ... & Clark, N. (2014). An intersectionality-based policy analysis framework: critical reflections on a methodology for advancing equity. *International journal for equity in health*, 13(1), 119.
- Hankivsky, O., Doyal, L., Einstein, G., Kelly, U., Shim, J., Weber, L., & Repta, R. (2017). The odd couple: using biomedical and intersectional approaches to address health inequities. *Global Health Action*, 10(sup2), 1326686.
- Hargrove, T. W. (2018). BMI trajectories in adulthood: The intersection of skin color, gender, and age among African Americans. *Journal of health and social behavior*, 59(4), 501-519.

- Hill, N. R., Fatoba, S. T., Oke, J. L., Hirst, J. A., O'Callaghan, C. A., Lasserson, D. S., & Hobbs, F. R. (2016). Global prevalence of chronic kidney disease—a systematic review and meta-analysis. *PloS one*, *11*(7).
- Iyer, A., Sen, G., & Östlin, P. (2008). The intersections of gender and class in health status and health care. *Global public health*, *3*(S1), 13-24.
- Johansen, K. L., Chertow, G. M., Foley, R. N., Gilbertson, D. T., Herzog, C. A., Ishani, A., ... & Wetmore, J. B. (2021). US renal data system 2020 annual data report: epidemiology of kidney disease in the United States. *American Journal of Kidney Diseases*, *77*(4), A7-A8.
- Lefevor, G. T., Boyd-Rogers, C. C., Sprague, B. M., & Janis, R. A. (2019). Health disparities between genderqueer, transgender, and cisgender individuals: An extension of minority stress theory. *Journal of Counseling Psychology*, *66*(4), 385.
- Monson, R. S., Kemerley, P., Walczak, D., Benedetti, E., Oberholzer, J., & Danielson, K. K. (2015). Disparities in completion rates of the medical pre-renal transplant evaluation by race/ethnicity and gender. *Transplantation*, *99*(1), 236.
- Mustian, M. N., Kumar, V., Stegner, K., Mompoin-Williams, D., Hanaway, M., Deierhoi, M. H., ... & Locke, J. E. (2019). Mitigating Racial and Sex Disparities in Access to Living Donor Kidney Transplantation: Impact of the Nation's Longest Single-center Kidney Chain. *Annals of surgery*, *270*(4), 639-646.
- Naqvi, J. B., Helgeson, V. S., Gary-Webb, T. L., Korytkowski, M. T., & Seltman, H. J. (2020). Sex, race, and the role of relationships in diabetes health: intersectionality matters. *Journal of Behavioral Medicine*, *43*(1), 69-79.

- Patzer, R. E., Perryman, J. P., Schrager, J. D., Pastan, S., Amaral, S., Gazmararian, J. A., ... & McClellan, W. M. (2012). The role of race and poverty on steps to kidney transplantation in the southeastern United States. *American Journal of Transplantation*, 12(2), 358-368.
- Reeves-Daniel, A., Adams, P. L., Daniel, K., Assimos, D., Westcott, C., Alcorn, S. G., ... & Hartmann, E. L. (2009). Impact of race and gender on live kidney donation. *Clinical transplantation*, 23(1), 39-46.
- Rogers, J., & Kelly, U. A. (2011). Feminist intersectionality: Bringing social justice to health disparities research. *Nursing Ethics*, 18(3), 397-407.
- Salter, M. L., Kumar, K., Law, A. H., Gupta, N., Marks, K., Balhara, K., ... & Segev, D. L. (2015). Perceptions about hemodialysis and transplantation among African American adults with end-stage renal disease: inferences from focus groups. *BMC nephrology*, 16(1), 1-10.
- Schold, J. D., Gregg, J. A., Harman, J. S., Hall, A. G., Patton, P. R., & Meier-Kriesche, H. U. (2011). Barriers to evaluation and wait listing for kidney transplantation. *Clinical journal of the American Society of Nephrology*, 6(7), 1760-1767.
- Sullivan, C., Leon, J. B., Sayre, S. S., Marbury, M., Ivers, M., Pencak, J. A., ... & Navaneethan, S. D. (2012a). Impact of navigators on completion of steps in the kidney transplant process: a randomized, controlled trial. *Clinical Journal of the American Society of Nephrology*, 7(10), 1639-1645.
- Sullivan, D. C., Mirmalek-Sani, S. H., Deegan, D. B., Baptista, P. M., Aboushwareb, T., Atala, A., & Yoo, J. J. (2012b). Decellularization methods of porcine kidneys for whole organ engineering using a high-throughput system. *Biomaterials*, 33(31), 7756-7764.

- Traino, H. M., Nonterah, C. W., Cyrus, J. W., Gillespie, A., Urbanski, M., & Adair-Kriz, M. (2015). Disparities in the completion of steps to kidney transplantation: protocol for a systematic review. *BMJ open*, 5(9), e008677.
- Van, E. E. D., Mereish, E. H., Woulfe, J. M., & Katz-Wise, S. L. (2019). Perceived discrimination, coping mechanisms, and effects on health in bisexual and other non-monosexual adults. *Archives of sexual behavior*, 48(1), 159-174.
- Veenstra, G. (2011). Race, gender, class, and sexual orientation: intersecting axes of inequality and self-rated health in Canada. *International journal for equity in health*, 10(1), 3.
- Zuurmond, M., Mactaggart, I., Kannuri, N., Murthy, G., Oye, J. E., & Polack, S. (2019). Barriers and facilitators to accessing health services: a qualitative study amongst people with disabilities in Cameroon and India. *International journal of environmental research and public health*, 16(7), 1126.

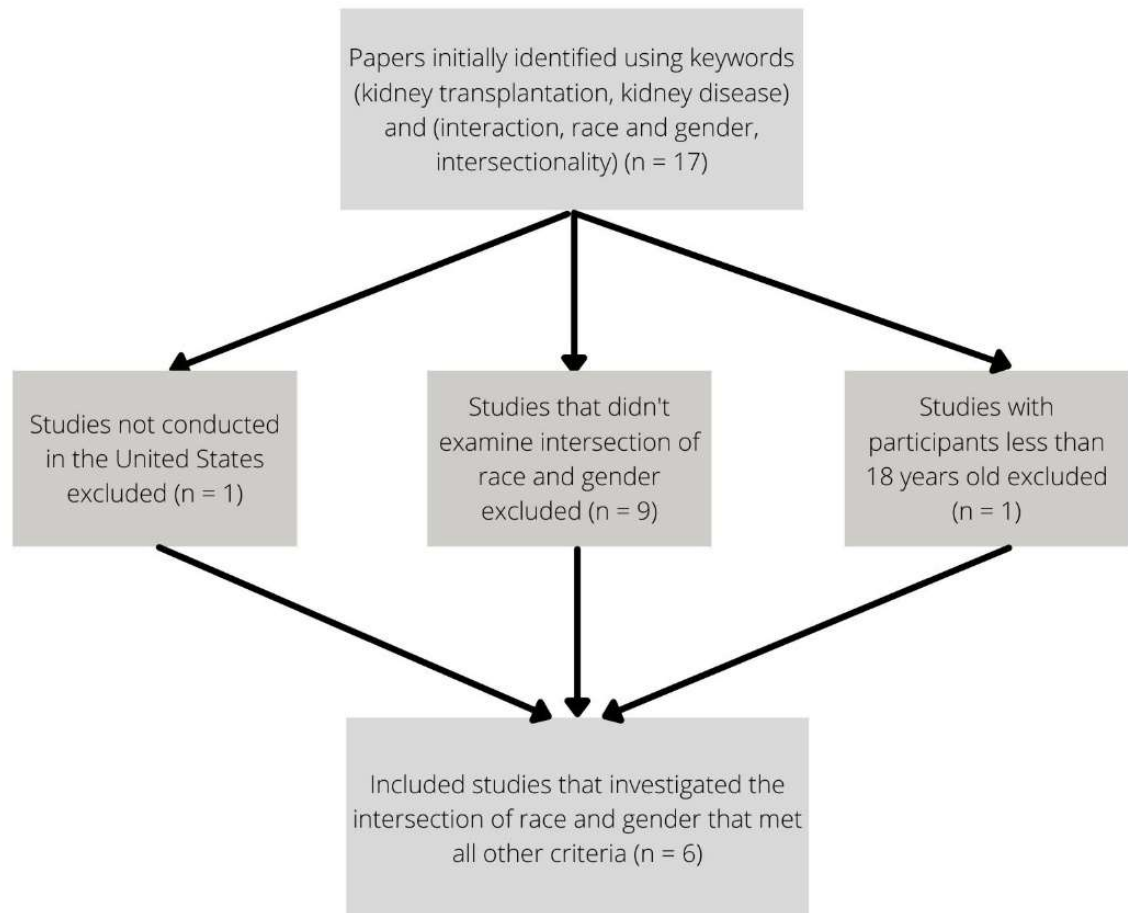
Figures**Figure 1.**

Figure 2.

Table 1 Summary of systematic review of studies examining the intersection of race and gender concerning ESRD between 2005 and 2021 in the United States					
Title	Citation	Sample	Design	Step in Transplant Process	Intersectionality
Sex Differences and Attitudes toward Living Donor Kidney Transplantation among Urban Black Patients on Hemodialysis	Gillespie et al., 2014	101 African Americans	Qualitative	Interest in transplantation	Intersectionality
Perceptions about hemodialysis and transplantation among African American adults with end-stage renal disease: inferences from focus groups	Salter et al., 2015	36 African Americans	Qualitative	Suitability for referral	Within group diversity
Age, Gender, Race, and Associations With Kidney Failure Following Living Kidney Donation	Gibney, Parikh, & Garg, 2008	126 kidney donors	Descriptive	Waiting list	Within group diversity and intersectional statistical analysis
Disparities in completion rates of the medical pre-renal transplant evaluation by race/ethnicity and gender	Monson et al., 2015	256 patients	Retrospective chart review	Transplant center workup	Intersectional statistical analysis
Impact of race and gender on live kidney donation	Reeves-Daniel et al., 2008	541 unsuccessful living kidney donors	Retrospective chart review	Evaluate living donor	Intersectional statistical analysis
Mitigating Racial and Gender Disparities in Access to Living Donor Kidney Transplantation: Impact of the Nation's Longest Single-Center Kidney Chain	Mustian et al., 2019	8,895 kidney transplant waitlist candidates	Retrospective cohort study	Waiting list	Intersectional statistical analysis
					Results
					Women were less likely to want a living donor kidney transplant and were less likely to be evaluated
					Women and older men were more positive about dialysis and women were more likely to be reluctant about kidney transplantation
					For both Black and White racial groups, males had lower donation rates but higher waiting list rates
					Black men were statistically less likely to complete the evaluation than White men. White and Hispanic men competed the evaluation more quickly than their female counterparts
					African American women were more likely to not donate due to obesity and were less likely to complete the evaluation form
					Female gender was associated with higher likelihood of living donor kidney transplant for White and minority patients